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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM B. GREENWALD and RICHARD C. EVANS

Appeal 2008-004685
Application 10/692,839
Technology Center 3600

Decided: ¹ June 30, 2009

Before WILLIAM F. PATE, III, JENNIFER D. BAHR and
STEVEN D.A. McCARTHY, *Administrative Patent Judges*.

Opinion for the Board filed by McCARTHY, *Administrative Patent Judge*.

Opinion Dissenting filed by BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304 (2008), begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or the Notification Date (electronic delivery).

1 The Appellant appeals under 35 U.S.C. § 134 (2002) from the
2 Examiner's decision finally rejecting claims 1-17 and 20-23 under 35 U.S.C.
3 § 103(a) (2002) as being unpatentable over Brock and Lauchner; finally
4 rejecting claims 18, 19, 26, 27 and 31 under § 103(a) as being unpatentable
5 over Brock, Lauchner and Cheng; and finally rejecting claims 24, 25 and 28-
6 30 under § 103(a) as being unpatentable over Brock, Lauchner, Cheng and
7 Klakovich. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

8 We REVERSE.

9 The claims on appeal relate to a telescoping slide assembly of a type
10 permitting technicians to gain access to a chassis mounted on the assembly
11 in a rack of computer equipment. (Spec. 5, ll. 3-6). Claim 1 is typical of the
12 claims on appeal:

13
14 1. A telescoping slide assembly
15 comprising:
16 interconnected load-carrying, intermediate,
17 and stationary slides movable relative to one
18 another to extend and retract the load-carrying and
19 intermediate slides relative to the stationary slide,
20 the load-carrying slide being formed to include a
21 keyhole-shaped slot providing an enlarged-
22 diameter entry and exit portion and a narrow-width
23 post-retainer portion, the keyhole-shaped slot
24 being adapted to receive a mounting post coupled
25 to a piece of equipment to be carried on the load-
26 carrying slide, and
27 a post retainer including a base coupled to
28 the load-carrying slide and an arm formed to
29 include a retention aperture and being coupled to
30 the base to move relative to the load-carrying slide
31 between a slot-opening position lying away from
32 the load-carrying slide to allow movement of the
33 mounting post into the enlarged-diameter entry and

1 exit portion of the keyhole-shaped slot and a slot-
2 closing position receiving the mounting post in the
3 retention aperture upon movement of the mounting
4 post from the enlarged-diameter entry and exit
5 portion into the narrow-width post-retainer portion
6 of the keyhole-shaped slot.
7

8 Thus, claim 1 recites a post retainer including an arm formed to
9 include a retention aperture. The arm is coupled to the base to move relative
10 to the load-carrying slide between a slot-opening position and a slot-closing
11 position. In the slot-closing position, the arm receives a mounting post in
12 the retention aperture. Claims 18, 20 and 23 similarly recite a post retainer
13 coupled to the load-carrying slide and formed to include a retention aperture
14 adapted to receive a mounting post. The post is movable relative to the load-
15 carrying slide between a slot-closing position and a slot-opening position.
16 The slot-closing position is adapted to retain the mounting post in a slot in
17 the load-carrying slide and the retention aperture at the same time. Claim 26
18 recites a post retainer including a body formed to include a retention
19 aperture. The body is arranged to move from a slot-closing position to a
20 slot-opening position. The body in the slot-closing position blocks a
21 mounting post located in a rearward slot in a load-carrying slide and in the
22 retention aperture from exiting the rearward slot. The remaining claims on
23 appeal depend ultimately from one of claims 1, 18, 20, 23 and 26.

24 The Examiner concludes that:

25
26 [I]t would have been obvious to modify the
27 structure of Brock et al by providing the arm of the
28 post retainer formed to include a retention aperture
29 (instead of a raised portion as disclosed by Brock
30 at al) for the purpose of providing a secured

1 engagement between the mounting post and the
2 post retainer, as taught by Lauchner et al, since
3 both teach alternate conventional drawer slide
4 locking structure, used for the same intended
5 purpose of locking/holding one member relative to
6 another, thereby providing structure as claimed.
7 Further, it would have been obvious to substitute
8 one known locking structure (i.e., the retention
9 aperture of Lauchner et al) for another locking
10 structure (i.e., the raised portion 263 of Brock et
11 al), because one of ordinary skill in the art would
12 have been able to carry out such a substitution, and
13 the results were reasonably predictable.
14

15 (Ans. 4-5; *accord* Ans. 8). With respect to the rejection of claims 24, 25 and
16 28-30, as well as the rejection of claim 31, the Examiner does not rely on
17 either Cheng or Klakovich as providing one of ordinary skill in the art
18 reason to make this substitution. (*See* Ans. 5-6 and 9-11 (relying on “Brock
19 et al., as modified” in view of Lauchner)).

20 This appeal turns on one issue:

21 Have the Appellants shown that the Examiner failed to
22 articulate reasoning with some rational underpinning sufficient
23 to support the conclusion that the teachings of Brock and
24 Lauchner would have provided one of ordinary skill in the art
25 reason to substitute a retention aperture for a raised portion in a
26 lock arm, as taught by Brock, for locking a mounting pin
27 projecting from a chassis in place on a load-carrying slide?
28 (*See* App. Br. 7-8, 10 and 11-12; Reply Br. 1.)

29 Brock discloses a mounting apparatus for mounting a computer server
30 in a server rack structure. (Brock, col. 1, ll. 52-54). Brock’s mounting

1 apparatus includes telescoping portions 14. (Brock, col. 3, ll. 58-60).
2 Figures 1A and 14 of Brock depict each telescoping portion 14 as having
3 relatively movable intermediate and load-carrying slides. Brock further
4 discloses forming L-shaped slots 254 in the inner surfaces of the load-
5 carrying slides. (Brock, col. 7, ll. 8-13).

6 Brock discloses riveting one end of a lock arm 256 to one of the load-
7 carrying slides so that the other end of the lock arm 256 extends across one
8 of the L-shaped slots 254. The lock arm 256 has a raised portion 263
9 defining an inclined surface extending into the L-shaped slot 254 and toward
10 the riveted portion of the lock arm 256. (Brock, col. 7, ll. 28-34 and Figs.
11 16-17).

12 Brock discloses coupling the chassis 250 of one of the computer
13 servers to the load-carrying slide by means of mounting pins 252. Each
14 mounting pin 252 has a stem portion 253 and a head portion 255. (Brock,
15 col. 7, ll. 3-7). Brock discloses positioning the chassis 250 of the computer
16 server over the load-carrying slides so that the mounting pins 252 on the
17 chassis 250 align with transversely extending portions 262 of the L-shaped
18 slots 254. Brock further discloses lowering the chassis onto the load-
19 carrying slide so that the mounting pins extend into the L-shaped slots 254.
20 Brock further discloses moving the chassis rearwardly to move the mounting
21 pins 252 into longitudinally extending portions 260 of the L-shaped slots
22 254. (Brock, col. 7, ll. 14-22). Once the mounting pins 256 move into
23 position in the longitudinally extending portions 260 of the adjacent L-
24 shaped slots 254, the raised portion 263 locks the adjacent mounting pin 252
25 in place in the L-shaped slot 254. (Brock, col. 7, ll. 35-44).

Lauchner discloses an assembly including a spring portion 100 attached to a first member 105 of a telescopic quick disconnect slide. As shown in Fig. 4 of Lauchner, the spring portion 100 takes the form of a leaf spring. A base or mounting portion 115 of the spring portion 100 appears to be riveted as at 120 to the first member 105 while a ramp portion or arm 112 extends from the base portion 115. (See Lauchner, col. 3, ll. 30-38 and 52-54).

A second member 205 of Lauchner's telescopic quick disconnect slide includes a tab portion 210 acting as a raised catch capable of stopping motion of the first member 105. (Lauchner, col. 4, ll. 21-25). The ramp portion or arm 112 of Lauchner's spring portion 100 includes a slot portion 114. (Lauchner, col. 3, l. 66 – col. 4, l. 2). Engagement between the tab portion 210 and the slot portion 114 removably couples the first and second members 105, 205 to stop the sliding motion of the first member 105 relative to the second member 205. (Lauchner, col. 6, ll. 26-35).

“[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007). Modifying Brock's structure to meet the claim limitations would have required more than the mere substitution of a retention aperture for Brock's raised portion 263, however.

As the Appellants point out (App. Br. 7-8; Reply Br. 1), one of ordinary skill in the art could not have substituted a slot similar to that disclosed by Lauchner for Brock's raised portion 263 without also lengthening the adjacent mounting pin 252 so that at least the head portion

255 of the mounting pin 252 extended into the slot to lock the chassis 200 in place. Lengthening the adjacent mounting pin 252 likely would require further modifications to the L-shaped slot 254 in the load-carrying slide and to the lock arm 256 in order to accommodate the increased length of the pin 252. Where, as here, the proposed modification to the assembly of the primary reference would require a substantial reconstruction and redesign of the elements shown in the primary reference, the modification is likely unobvious. *See In re Ratti*, 270 F.2d 810, 813 (CCPA 1959). The Examiner's reasoning that it would have been obvious to substitute a slot similar to Lauchner's slot portion 114 for Brock's raised portion 263 lacks rational underpinning and does not suffice to support the conclusion of obviousness. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Therefore, the Appellants have shown that the Examiner failed to articulate reasoning with some rational underpinning sufficient to support the conclusion that the teachings of Brock and Lauchner would have provided one of ordinary skill in the art reason to substitute a retention aperture for a raised portion in a lock arm, as taught by Brock, for locking a mounting pin projecting from a chassis in place on a load-carrying slide. The Appellants have shown that the Examiner erred in rejecting claims 1-17 and 20-23 under § 103(a) as being unpatentable over Brock and Lauchner.

The Examiner does not point to any teaching or suggestion in either of the secondary references, Cheng or Klakovich, that would have provided one of ordinary skill in the art reason to make this substitution. Therefore, the Appellants have shown that the Examiner erred in rejecting claims 18, 19, 26, 27 and 31 under § 103(a) as being unpatentable over Brock,

Lauchner and Cheng; and in rejecting claims 24, 25 and 28-30 under §
103(a) as being unpatentable over Brock, Lauchner, Cheng and Klakovich.

DECISION

We REVERSE the decision of the Examiner to reject claims 1-31.

REVERSED

BAHR, *Administrative Patent Judge*, DISSENTING.

I cannot join in the majority opinion. Quite simply, I do not share the view of my colleagues that the modifications of Brock required to accommodate the substitution of one conventional slide locking mechanism for another, as proposed by the Examiner (Ans. 4-5), amount to “substantial reconstruction and redesign of the elements shown in the primary reference.” Rather, “lengthening the adjacent mounting pin 252 so that at least the head portion 255 of the mounting pin 252 extended into the slot to lock the chassis 200 in place” and “further modifications to the L-shaped slot 254 in the load-carrying slide and to the lock arm 256 in order to accommodate the increased length of the pin 252” strike me as relatively simple and predictable mechanical modifications, well within the technical grasp of a person of ordinary skill in the art.

In order to support a conclusion of obviousness, all of the features of the secondary reference need not be bodily incorporated into the primary reference. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Moreover, the artisan is not compelled to blindly follow the teaching of one prior art reference over the other without the exercise of independent judgment. *Lear Siegler, Inc. v. Aeroquip Corp.*, 733 F.2d 881, 889 (Fed. Cir. 1984).

“A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421. An improvement that is nothing more than the predictable use of prior art elements according to their established functions is likely to be obvious. *Id.* at 417. The majority has not convinced me that the modification of Brock proposed by the Examiner is anything more than that.

1 The majority states that “[t]he Examiner’s reasoning that it would
2 have been obvious to substitute a slot similar to Lauchner’s slot portion 114
3 for Brock’s raised portion 263 lacks rational underpinning and does not
4 suffice to support the conclusion of obviousness.” I do not agree. The
5 Examiner points out that Lauchner and Brock teach alternative conventional
6 drawer slide locking structures, used for performing the same function of
7 locking/holding one member relative to another. Ans. 5. Neither the
8 majority nor Appellant has specifically contested that finding. As noted
9 above, a modification, such as the one proposed by the Examiner, which is
10 nothing more than the predictable use of prior art elements according to their
11 established functions, is likely to be obvious.

12 The majority appears to require the Examiner to point to a “teaching
13 or suggestion in [the applied references] that would have provided one of
14 ordinary skill in the art reason to make” the proposed substitution.
15 However, the Supreme Court has stated that a rigid insistence on teaching,
16 suggestion, or motivation is incompatible with its precedent concerning
17 obviousness. *KSR*, 550 U.S. at 419. Rejections on obviousness grounds
18 must be supported by “some articulated reasoning with some rational
19 underpinning” to combine the known elements in the manner required in the
20 claim at issue. *Id.* at 418. However, “the analysis need not seek out precise
21 teachings directed to the specific subject matter of the challenged claim, for
22 a court can take account of the inferences and creative steps that a person of
23 ordinary skill in the art would employ.” *Id.* The Examiner articulates a
24 reason for the substitution supported by some rational underpinning in the
25 paragraph bridging pages 4 and 5 of the Answer. Inasmuch as the majority’s

analysis has not persuaded me that the rejections should be reversed, I
respectfully dissent.

mls

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